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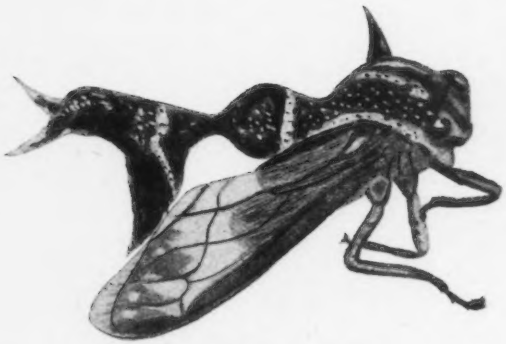
ENTOMOLOGICAL NEWS



Heteronotus vulnerans.

SEPTEMBER, 1903.

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EXOTIC LEPIDOPTERA

Ernest Swinhoe, 37 Addison Gardens, London W., England

Will correspondents kindly note that I have left Oxford and that in futnre my address will be as above.

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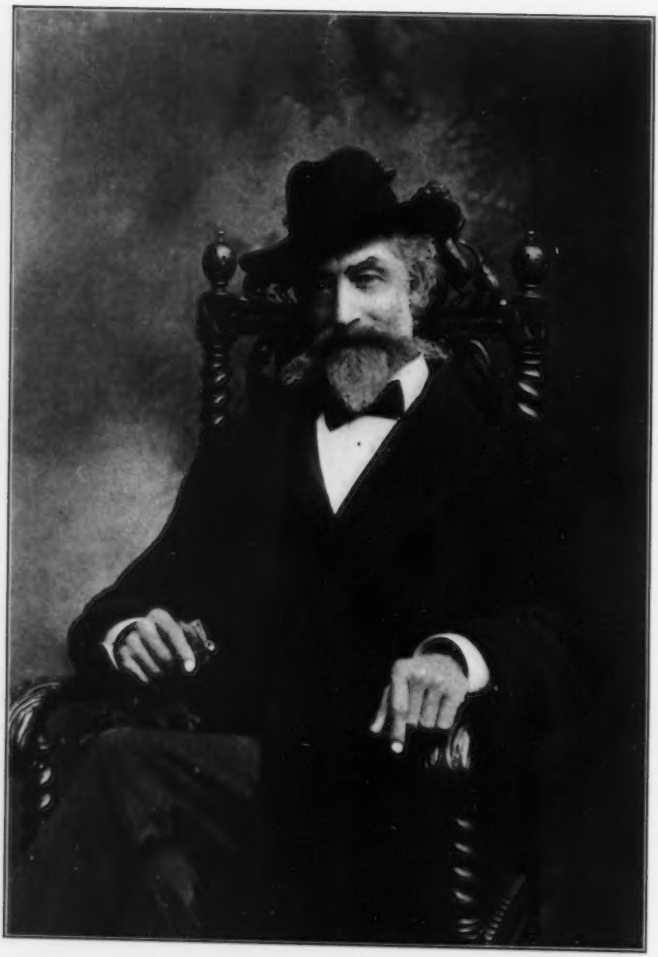

CHARLES ALFRED BLAKE.

ENTOMOLOGICAL NEWS

AND

PROCEEDINGS OF THE ENTOMOLOGICAL SECTION

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

VOL. XIV. SEPTEMBER, 1903. No. 7.

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Charles Alfred Blake.

Mr. Blake died June 24, 1903. He was suddenly stricken with Angina pectoris and expired in a few minutes. He was born at Brighton, England, July 23, 1834, and came to America in 1849. He received his education in the English Naval School, at Greenwich. When quite a small boy he was fond of rearing silk-worms and it became quite a hobby with him. He was thus led to take an interest in moths and butterflies in general. For over forty years he was in the dental and surgical instrument business and was thus led to make entomological forceps, and the Blake pinning forceps have been favorably known for many years. On October 22d, 1860, Mr. Blake was elected a member of the American Entomological Society and until recent years was a very active member, being an ardent collector and interested in all orders, but worked particularly in the Hymenoptera and Lepidoptera. He formed quite a large collection which is now in the possession of his children. In the Proc. Ent. Soc., Phila., Vol. II, 279, 1863, appears the following title: Description of a Supposed New Genus and Species of Saturniidæ from the Rocky Mountains. By C. A. Blake. *Coloradia* nov. gen. *pandora* n. sp. (see pl. 7).

The description of this new and fine genus and species appears to have been his first effort as an author. At this time the collections of the American Entomological Society were in charge of what were called "Standing Committees" and Mr. Blake was on the Committees for Lepidoptera, Insect Architecture and also on the Library Committee. His next article was not so fortunate as *Papilio grotei** proved to be a synonym of *P. gundlachianus*.

In 1870† he described *Mutilla cressoni* and *M. nortoni*, and evidently became greatly interested in this family of the Hymenoptera, for in the same volume (pp. 217–265) will be found a "Synopsis of the Mutillidæ of North America." This was a very valuable contribution to the literature of the Hymenoptera. Tables were given to separate the species and also quite a number of text figures; many new species and some new genera were described. Subsequent papers on the Mutillidæ appeared in the same publication as follows: Vol. IV, p. 71, 1872; Vol. VII, p. 243, 1878, and a monograph of the family, Vol. XIII, p. 179, 1886. In the first volume of the ENT. NEWS are a number of short articles and notes, and on page 127 a humorous article in which the names of a number of members of the American Entomological Society are introduced. His last article appeared in ENT. NEWS, Vol. II, p. 33, 1891, since which time he has not taken an active part in the work of the Am. Ent. Soc. or in entomology. Mr. Blake was a tall, fine looking man, genial, courteous, and a pleasant companion. He was a representative of the early days in American Entomology and did very good work, and will always be remembered by his studies in the Mutillidæ. Those who capture *Coloradia pandora* will also wish to know something of the describer of such a fine genus and species.

In the publication of the "Proceedings" and the earlier volumes of the "Transactions," which were printed by the members of the Society in its own printing office, Mr. Blake took an active part and rendered much valuable assistance both in composition and presswork. He was a useful Com-

* Proc. Ent. Soc., Phila., Vol. IV., p. 313, 1865.

† Trans. Am. Ent. Soc., Vol. III, p. 68, 1870.

mitteeman, always ready and willing to devote his spare time to any work that was to be done, and what he did, was well done. Mr. E. T. Cresson speaks of the early days of the Society as follows:

"I remember the many nights Mr. Blake toiled with me in the publication of the Proceedings and Transactions, and he was ever ready and willing to help me when no others volunteered; we worked together side by side at the case, and while I rolled on the ink, he pulled the press—being the stronger. He was a cheerful companion, and his good humor rendered the work easier and the time passed more pleasantly. The Society is greatly indebted to him for his endeavors in its behalf."

He leaves two sons and several daughters, none of whom take an interest in the subject of entomology. His fine collection will be presented to the American Entomological Society.

A New Bee of the Genus Andrena.

By T. D. A. Cockerell.

Andrena placitæ, n. sp.—♂. Length about 7 mm.; black, the abdomen with a slight greenish lustre; pubescence of head and thorax, above and below, abundant, long and white; face densely covered with white hair; abdominal segments with apical white hair-bands, broadly interrupted on the first and second; apex of abdomen densely tufted with white hair. Process of labrum truncate-subemarginate; mesothorax dull, minutely rugose, sparsely but distinctly punctate; the anterior part of mesothorax is inclined to be greenish, the posterior part and scutellum are slightly purplish; enclosure of metathorax minutely rugose; tegulæ pale testaceous; wings a little yellowish, iridescent, stigma and nervures dark reddish-brown; stigma large; legs black with white hair, the tarsi rather dark ferruginous; abdomen microscopically tessellate. Extremely similar to *A. geranii*, Rob., but distinguished by the white tuft at end of abdomen, the somewhat narrower abdomen, the much denser hair on face, and the color of the antennæ. The first recurrent nervure enters the second submarginal cell at little beyond its middle. *A. illinoensis*, which has the tufted abdomen, is very different by its even larger stigma, of orange color. The color of the antennæ readily distiuguishes *A. placitæ* from *A. sapellonis*.

Hab.—Placita, New Mexico, about 6859 ft., April 25, 1903. (*T. D. A. & W. P. Cockerell.*)

Note on a Small Collection of Dragonflies (Odonata) from Baltimore, Maryland.

By Dr. F. Ris, Rheinau, Switzerland.

In the summer of 1891 I had occasion to collect a few dragonflies at Locust Point, Baltimore. The visit was a very short one, or rather there were two visits of five or six days each in the latter half of summer, at the end of July and at the end of August. I was then a ship's physician on a North German Lloyd steamer; many things had to be seen in these short visits to the United States, and dragonfly-hunting was but occasionally done in the immediate neighborhood of the Lloyd pier at Locust Point, where some swampy ground attracted the Neuropterist's attention. Of course the results of this hunting are quite modest, but nevertheless they seem to illustrate rather characteristically a certain type of coast fauna, so that I thought the enumeration of my captures might not be devoid of interest to the reader of Ent. News. Two species only were captured in Druidhill Park and near Towson town respectively; where not mentioned, the locality is Locust Point.

1. *Calopteryx maculata.* Not rare in Druidhill Park.

2. *Lestes rectangularis.* Very numerous; a conspicuous species with its elongate abdomen and bright blue eyes.

3. *L. disjunctus.* A few teneral specimens.

4. *Anomalagrion hastatum.* Common, females scarce.

5. *Ischnura verticalis.* Very abundant. The numerous females show a curious polymorphism. In some teneral females of the green form the upper side of segments 8 and 9 is largely blue. I cannot see a trace of this blue in adult green females and think I am sure that this condition is not due to fading of colors. All green females have the pale antehumeral bands narrow in the manner of males. In several orange females the antehumeral band is decidedly broader than in the male and green female, but there is left a black band on the humeral suture, so that the color-pattern remains the same. These females have the base of abdomen orange to the last fourth of segment 3; they are somewhat teneral and their orange is very bright. The majority of orange females

have no black at all, or but the very slightest trace of it, left on the humeral suture, so that the color-pattern of the thorax is changed; ground color orange with a broad dorsal median band bronzy black. These individuals are fully adult and their orange is of a dull brownish shade. They correspond exactly to the orange forms of the common European *I. elegans* and the not less common Indo-African *I. senegalensis*.

It is just possible, but not very probable, that the two modifications of the green and yellow form respectively are only conditions of age. Observers might well give some attention to the question. One might further suggest the confusion of two different species; but I cannot find any other difference in the two sets of females, and the many males are all identical.

Fully colored females show a curious dull greyish blue pulverulence, which, leaving the last third or fourth of each segment black, produces a peculiar annular color-pattern, quite unknown in old-world Ischnuræ.

6. *I. ramburi*. Less common than *verticalis*, but still in good numbers. Orange females much more prevalent, no black on their humeral sutures.

7. *Enallagma durum*. Two females of this large southern species were found.

8. *E. civile*. Common, females scarce.

9. *E. aspersum*. Scarce on the first visit at end of July, rather numerous a month later.

10. *Nehalennia posita*. Very abundant. Adult females show the same annular pattern of dull grey pulverulence as *I. verticalis*.

11. *Argia violacea*. Common in the forest near Towson town.

12. *Anax junius*. One male captured, others seen.

13. *Libellula pulchella*. Two specimens captured and others seen, scarce and wary.

14. *L. auripennis*. Very abundant and a most conspicuous insect by its bright red body and rich golden wings. Both sexes in about equal numbers and easily captured.

15. *Plathemis lydia*. Common.

16. *Celithemis eponina*. Scarce and wary; but one female captured.

17. *Perithemis domitia.* One female.

18. *Pantala flavescens.* One male captured and other specimens seen.

19. *Diplax vicina.* A few teneral specimens in July, not seen again a month later.

20. *Trithemis berenice.* A single female. Registering this species as *Trithemis* needs justification, when very competent American observers have already removed it to *Micrathyria.*

The main character by which *Micrathyria* has been separated from (American) *Trithemis*, is the separate origin of the upper sector of triangle in hind wings. But a very homogeneous and natural association of species—a good genus—can be obtained, when another neural character is added; in what I consider now as true *Micrathyria*,—about 15 distinct species are known to me—there exists always a supplementary nervule between the principal sector (M_4) and the "bridge" besides the normal one, which always in Libellulinæ precedes the "oblique vein." I am indebted to Messrs. Comstock and Needham's well-known paper on the wings of insects for the knowledge of the taxonomic importance of this region. This supplementary nervule, which in German terminology I called the "Antenodal-Brückenquerader," is absolutely characteristic for typical *Micrathyria* (*didyma*, *septima*, *hageni*, *æqualis*, *debilis*, etc.); it is always absent in *Trithemis.* Absent it is in *berenice*, and so I believe *berenice* cannot remain with *Micrathyria*, notwithstanding its separated triangular sectors in the hind wings. The same condition of neuration—separated sectors, supplementary nervule absent—exists in other species, as in the Amazonian *Trith. attenuata* Kby. and the wide-ranging *Trith. minuscula.* There seem to exist sufficient reasons why such species should not be separated from *Trithemis*, and so the right place for *berenice* too may be this genus. An undescribed Amazonian species in the de Selys' collection and perhaps even *attenuata* are possibly its nearest relatives.

I have to add a word on the generic name of *Trithemis.* It is possible and advisable to separate Old World from American *Trithemis.* (I know that this is the opinion of such an

authority as Mr. McLachlan). Besides a notable difference in facies, there is a slight but constant neural character, whereby the two groups can be separated. Old World *Trithemis* have constantly two rows of cells between the subnodal and supplementary sectors; a single row of cells in this area is as constant in American *Trithemis*. Only we have then to remove *umbrata* and *funerea* from the American genus; they have two rows of cells, but their nodal sector is distinctly waved, whereby they are separated from American as well as from Old World *Trithemis*. So we have:

Nodal sector waved—two rows of cells between subn. and suppl. s **umbrata** and **funerea.**
Nodal sector straight—two rows id. . . . . Old World **Trithemis.**
one row id. . . . . American **Trithemis.**

Provisionally the accepted name of *Trithemis* may still unite the three groups, but generic names must be bestowed on them, when an attempt is made to bring better light into these numerous and sometimes difficult tropical forms.

21. *Mesothemis simplicicollis.* Very abundant, the most numerous of the Libellulinæ; many of them alighted on the steamer in Chesapeake Bay when still far away from land.

22. *Pachydiplax longipennis.* Nearly as common as the last species but more confined to swampy grounds.

The prevalence of *Lib. auripennis*, *Mesoth. simplicicollis*, *Pachyd. longipennis*. *Anomalagr. hastatum*, as well as the presence of *Pantala flavescens*, *Trith. berenice* and *Enall. durum* give the Locust Point faunula a decidedly southern aspect. Moreover, for a European observer, the great abundance of minuscule forms—represented by *I. verticalis*, *A. hastatum*. *N. posita*—was a most striking feature; it reminded me of the aspect of tropical swamps in India with their great abundance of the minute *Agriocnemis incisa*, or at Bahia with *Ceratura capreola*.

[It is appropriate to add here the following list of captures made near Chestertown, Kent County, Maryland, on the opposite side of Chesapeake Bay, between August 13 and 23, 1899, by Mr. E. G. Vanatta, of the Academy of Natural Sciences

of Philadelphia. *Argia violacea*, 2 ♀; *Nehalennia posita*, 3 ♂, 3 ♀; *Enallagma durum*, 2 ♀; *Ischnura verticalis*, 1 ♀; *Libellula auripennis*, 14 ♂, 5 ♀; *L. cyanea* 1 ♂; *L. axillena vibrans*, 2 ♀; *L. pulchella*, 4 ♂, 1 ♀; *Plathemis lydia* (*trimaculata*), 1 ♂, 2 ♀; *Mesothemis simplicicollis*, 1 ♂.—PHILIP P. CALVERT.]

Palaeoxenus (Cryptostoma) Dohrnii Horn.

BY A. FENYES, Pasadena, Cal., May 23, 1903.

I found to-day a small colony of this beautiful Eucnemid under the bark of sugar pine at Wilson's Peak (5800 feet above sea-level). The beetles were congregated in a spot of about a square foot area, under the bark of an old sugar pine trunk, and owing to their rather sluggish locomotion, were easily bottled. Both sexes were represented, but *no* difference in the structure of the antennæ is noticeable, in accordance with the corrected statement of Dr. Horn, who in consequence changed the generic name from *Cryptostoma* to *Palæoxenus*.

When Horn described the species (January, 1878), he only had one female in his hands, and thought that it belonged to *Cryptostoma*. In his monograph of the Eucneminæ, etc. (January, 1886), he states: "This species is the only brightly colored form in our fauna. The specimen in my cabinet was given me by Dr. C. A. Dohrn, who possesses another, which was said to have been collected at San Diego, Cal., but as I have found at least one other species in the same lot from Yucatan, this species may be from that region."

Prof. H. C. Fall, in his List of the Coleoptera of Southern California (1901) says: "*Palæoxenus, P. dohrnii*, a species said to have been found near San Diego, but this is probably an error, as is suspected by Horn; the species is quite surely tropical."

It is evident from the above quotations, that the species has never been collected again since its description, which was published twenty-five years ago; a very noticeable circumstance, as the beetle is of large size (.60 inch, 15 mm.) and is brightly and strikingly colored.

The Dragonflies (Odonata) of Tennessee, with a Few Records for Virginia and Alabama.

By E. B. Williamson, Bluffton, Indiana.

In the preparation of this list I am indebted to Mr. C. C. Adams for the pleasure of studying the odonates collected by himself in Virginia, Alabama and Tennessee. In the list his records are properly credited to him with the initials C. C. A. I am also under obligations to Dr. Calvert, as will appear below. My collecting was done about Nashville, from September 3, 1900, to June 7, 1901. On many of my excursions I enjoyed the assistance and companionship of Mr. P. H. Whiting, a student in Vanderbilt University. For valuable advice as to suitable localities and for aid in collecting nymphs thanks are due Mr. Albert Guess, hunter and fisherman, at home along the Cumberland.

The environs of Nashville are not especially favorable to odonate life. There are no natural lakes or ponds of any size and depth. Artificial ponds about deserted brick-yards teem with many individuals of a few species. The Cumberland is the congenial home of river-frequenting species such as *Hetærinas* and *Gomphi;* and in the occasional marshes of the river's great bends a few species not observed elsewhere were taken. The largest one of these marshes which I found is below Nashville, on the farm leased by the State Penitentiary. This marsh is near the middle of the curve in which the farm is situated, and opposite the cliffs locally known as "Buzzard Rocks." In the east end of this marsh, and nowhere else, *Ischnura prognata* was taken. In my notes I have designated this as the Morrow Swamp, from the name of the owner of the farm. North of Nashville, ponds are on either side of the grading which leads up to the road bridge over the Cumberland. Here the first dragonflies of the season of 1901 were observed on March 17. Other ponds are to be found in the Centennial Grounds, Nashville, on a farm adjoining the Centennial Grounds on the east, on the Morrow farm where the old brick-yards were, and about the brick-yards in Fairfield, East Nashville. As records will show, some collecting was

done in Cheatham County, along Sycamore Creek, a tributary of the Cumberland, about twenty miles below Nashville. For the opportunity to collect here I am indebted to Major E. C. Lewis, of Nashville, through whose kindness I was able to go to and from Sycamore Creek on his river steamboat; and to Mr. A. P. Jackson, of Sycamore, whose open hospitality I enjoyed while there.

Doubtless about Nashville, during a favorable year, dragonflies are on the wing from March 1 to December 1,—a period of 275 days. My collecting covered only 174 days of this period. I was first in the field September 16, 1900, and for the last time June 16, 1901. Thus the latter three-fourths of June, a very favorable time, and all of July and August, were missed. Of necessity, therefore, my list is doubtless far from a complete one, but, doubtless also, it will, in addition to stating certain records, by these records indicate what might be expected, thus throwing some light on one of the all-neglected faunas environing the "Athens of the South."

1. **Calopteryx maculata.**

Abingdon, Va., August 20, 1901 (C. C. A.); Glendale Park, Nashville, September 27; Cumberland River, November 3, May 16, June 2; Sycamore, June 5; rare, so far as my observations go.

2. **Hetærina americana.**

Cleveland, August 1, 1899, and Tazewell, Clinch River, August 18, 1902, Va.; Mussel Shoals, Ala., November 4, 1901; between Walker's and Needham's Ford's, August 19; Horton's Ford, August 15; Sharp's Ford, August 22; Agee to Affet, August 25, all on Clinch River, Tenn., 1899; Sneedsville, August 16, and Clinton, August 26, Tenn., 1899 (C. C. A.); Springvale, Tenn., September 4, 1900 (C. C. A.). Small stream through Centennial Grounds, Nashville, Tenn., September 25, 29; Cumberland River, September 30, June 2, rare; Sycamore, June 6.

3. **Hetærina tricolor.**

Mussel Shoals, Ala., November 1, 1901; Tazewell, Clinch River, Va., August 18, 1899; Walker's and Needham's Fords,

August 19; below Needham's Ford, August 20; Haynes' P. O., August 19; Sharp's Ford, August 21; Agee to Affet, August 25, one pair in coitu; all on Clinch River, Tenn., 1899; Craig's Ford, Powell River, August 22, 1899; Hiawassee River and Dayton, October 9, 1901 (pair in coitu, the ♀ ovipositing); Springvale, August 30, September9, 1900, and Charleston, September, 1901; all in Tennessee, (C. C. A.). Cumberland River, September 28, 29, 30; October 5, 14, 19, 20, 27; November 3; common, pairing on all dates, adults and tenerals taken.

Variation in Color of Wings of Males taken in Tennessee.—Between the light and dark individuals all intermediate conditions are to be found.

Light..—Front wings barely tipped with dark; apex of hind wings beyond pterostigma black. Base of hind wings with colored area extending to about the tenth antecubital; not occupying full width of wing except at extreme base; outer edge of dark area nearly entire.

Dark.—Front wings distinctly tipped with black; apex of hind wings black from basal side of pterostigma. Base of hind wings darker than in the paler individuals, and the colored area more extended; along the anterior portion of the wing reaching the seventeenth antecubital and leaving the outer edge of the dark area very irregular.

4. **Lestes unguiculatus.**

Morrow Swamp and smaller marshes to the east, May 22.

5. **Lestes forcipatus.**

Centennial Grounds, Nashville, September 25; Morrow Swamp and neighboring marshes, May 23, 30, and June 1, 2, 7.

6. **Lestes rectangularis**

Morrow Swamp, May 21.

7. **Lestes inequalis.**

Morrow Swamp, May 30, one ♂.

8. **Argia putrida.**

Tazewell, Clinch River, Va., August 18, 1899; Agee to Affet, Clinch River, August 25, 1899, and Springvale, September 4, 1900, Tenn. (C.C.A.). Cumberland River, September 19, October 5, June 2; Sycamore, June 6.

9. **Argia apicalis.**

St. Paul, Va., August 9, 1899; Agee to Affet, Clinch River, August 25, 1899, pair in coitu, Chattanooga, October 15,

1901, pair in coitu, and Morristown, October 16, 1901, Tenn. (C. C. A.). Cumberland River, September 16, 28, October 5, 19, 20, abundant and pairing on last date.

10. **Argia tibialis.**

Cumberland River, June 2, 4, Sycamore Creek, June 6.

11. **Argia translata.**

(Determined by Dr. Calvert). Cedar Bluff, August 1, 1899; Wytheville, August 17, 1900, one pair in cop., and Cleveland, August 4, 1899, one pair in cop., Va.; Horton's Ford, August 15, and Sneedsville, August 16, 1899, Tenn. (C. C. A.).

12. **Argia sedula.**

Cleveland, August 4, St. Paul, August 9, and Cedar Bluff, August 1, Va.; Sneedsville, August 16, one pair in cop., and Agee to Affet on Clinch River, August 25, Tenn., 1899. (C. C. A.).

13. **Argia violacea.**

Cleveland, August 4, Coeburn, August 7, Cedar Bluff, August 1, and N. Tazewell, July 29, Va., 1899. (C. C. A.). Glendale Park, Nashville, May 31, Cumberland River, June 2, Sycamore Creek, June 5.

14. **Nehalennia posita.**

Centennial Grounds and neighboring ponds, September 25, October 2, 16, 25; Forrow Swamp and old brick-yard ponds on Morrow farm, April 21, 28, 29, May 4, 5, 8, 11, 27, 30, June 1, 2. The teneral female is a light bright blue, where the male is bright green; with age the females become entirely pruinose.

15. **Enallagma civile.**

About ponds in Centennial Grounds and in North Nashville, September 25, October 16, 19, 20, 25, Morrow Farm, October 27, May 14, 23.

16. **Enallagma aspersum.**

About a small temporary pond near Morrow Swamp, May 22, 23; seen only on these two dates, and only about this one small pond,—one of a chain of ponds along the foot of the sharp descent from the upland to the river-bottom.

17. **Enallagma geminatum.**

Morrow Swamp, May 4, 23; June 1, 7.

18. **Enallagma exsulans.**

Cedar Bluff, Va., August 1, 1899; Sneedsville, August 16, and Haynes' P. O., August 19, 1899, on Clinch River, Tenn. (C.C.A.). Richland Creek, Morrow Farm, June 2; Sycamore Creek, June 5.

19. **Enallagma signatum.**

Centennial Grounds, September 25; Morrow Swamp, May 14, 30; June 7.

20. **Enallagma pollutum.**

Morrow Swamp, May 11.

21. **Ischnura verticalis.**

Centennial Grounds and Morrow Farm, April 15, 29; May 4, 5, 23, 30; June 1.

22. **Ischnura prognata.**

Morrow Swamp, May 4, 5, 11, 22, 30. A description of the female, hitherto unknown, follows.

Ischnura prognata ♀.—Length, 38, abdomen 32, hind wing, 21 mm.—Recently emerged. Bright orange, marked with black and bronze; labrum narrowly black on either side, wider basally; suture between clypeus and labrum with a black median spot; suture between frons and clypeus black; vertex bronze, first segment of antennæ pale, ocelli ruby. A straight mid-dorsal thoracic stripe about .5 mm. wide, a distinct spot on the humeral and lateral sutures at base of each wing and an indistinct short stripe on first laterals uture, bronze; below paler orange, feet pale, spines black, last tarsal segment and tarsal hooks black tipped. First abdominal segment indistinctly darker apically; 2 and 3 with dorsal apical rings of bronze, and 3 with a subapical dorsal spot; 4 with a dorsal stripe occupying apical 6-7 of segment, apically abruptly dilated into an urn-shaped spot, sometimes this spot and the dorsal stripe not continuous; from segment 4 the bronze dorsal stripe is continuous, with narrow basal interruptions at each segment, to ⅓ the length of segment 9; remainder of abdomen yellow; sterna narrowly black, reduced to a basal spot on segment 1. Nodal sector of front wing arising normally between the fourth and fifth postcubitals, nearer the fifth; in the hind wing arising between the third and fourth postcubitals; 3 antenodal cells. Spine not present on the apex of the sternum of abdominal segment 8.

Like other *Ischnura* females and those of *Anomalagrion hastatum*, and of *Nehalennia posita*, that of *prognata* becomes pruinose with age.

23. **Anomalagrion hastatum.**

Centennial Grounds, September 25; October 2, 27; Morrow Farm, April 29, May 4, 11, 22; June 1, 6.

24. **Herpetogomphus designatus.**

Rockwood, October 6, 1901; Springvale, September 13, 1901, August 30, 1900, and Morristown, September 17, 1900, Tenn. (C. C. A.). Along the Cumberland, below Nashville, September 19, common, only males seen.

25. **Ophiogomphus rupinsulensis.**

Stone River, near the Cumberland, May 16, 1901, 1 ♂. P. H. Whiting.

26. **Dromogomphus spinosus.**

Sycamore, Tenn., June 5, 1901, a ♀ nymph found on the ground near the water's edge; this emerged the same day, giving me my only record of this species for Tennessee.

27. **Gomphus quadricolor.**

Sycamore, June 5, a single male.

28. **Gomphus hybridus.**

Cumberland River, May 12, 15, 16, 19, 22, 23, 30; June 2, 6, 7; reared, and exuviæ found; no old, worn specimens taken.

29. **Gomphus crassus.**

Cumberland River, May 23, one ♂.

30. **Gomphus vastus.**

Cumberland River, May 19, 23, 30. During May, 1901, the Cumberland was unusually high, falling and rising frequently, with the result that the banks were constantly muddy. As the nymphs of *Gomphus vastus* and *hybridus* crawled up from the water, they were more or less coated with mud. Often the imago emerged before this mud dried, and in other cases the quantity of mud did not interfere with imagination, but many imagos failed to emerge because of it. Fully matured imagos of both these species were never seen by me along the river. They were always found in fields or thin woodland, or along roadways from near the river to half a mile from it.

31. **Gomphus plagiatus.**

Straw Plains, Tenn., September 30, 1900 (C. C A.). Cumberland River, September 19, 30. Never seen away from the river, resting on trees or on bushes, or occasionally on the

ground, or flying over the water. All seen were old specimens. Possibly this species, in its early imaginal life (the period when I observed *G. vastus* and *hybridus*), may also leave the river, and possibly the old males of *vastus* and *hybridus* which escape death in the fields and the woods, return to pass their declining hours near their birthplace. But at present the movements of imago Gomphines and the ecological factors involved are unknown.

32. **Gomphus notatus.**

Cumberland River, September 30. As observed the habits are similar to *G. plagiatus*. An exuvia, apparently of this species, was found along the Cumberland June 7.

33. **Gomphus spiniceps.**

Horton's Ford, Tenn., August 14, and Clinch River P. O. August 14, 1899 (C. C. A.).

34. **Lanthus albistylus.**

Sycamore Creek, June 5, one teneral ♀. Perhaps the nymphs described by Hagen (Trans. Am. Ent. Soc., 1885, p. 281) from Gregson's Spring, Ky., may be this species.

35. **Hagenius brevistylus.**

Clinchport, Va., Aug. 13, 1899, a nymph (C. C. A.)..

36. **Boyeria vinosa.**

Holston River, Holston County, Va., a nymph; Bridgeport, Ala., October 31, 1901; Springvale, September 5, and White Pine, September 6, 1900, Tenn. (C. C. A.). Roan Station, Tenn., September 3, 1900. Lancaster Thomas (communicated by Dr. Calvert).

37. **Epiæschna heros.**

Reared May 16, June 2, 3, Nashville. Nymphs were all collected in ditches draining marshes on Morrow Farm. It may be of interest to note that, at the time nymphs were collected, a chimney-building crayfish, which Prof. Hay pronounces new, was taken in numbers in the dredging net. No imagos of *heros* other than those I reared were seen by me in Tennessee.

38. **Æschna constricta.**

Springvale, Tenn., September 21, 1901, one ♀, apparently this species (C. C. A.); Roan Station, Tenn., September 3,

1900, one ♂, one ♀, Lancaster Thomas (communicated by Dr. Calvert).

39. **Anax junius.**

Nashville, October 14; North Nashville, March 17; Morrow Swamp, April 29–June 7; many exuviæ gathered and more seen clinging to vegetation in and about Morrow Swamp.

40. **Didymops transversa.**

Cumberland River, May 12, 15; one ♀, not fully matured, came into the basement of Wesley Hall, Vanderbilt University, an hour or two before sunset, May 13, 1901.

41. **Macromia illinoiensis.**

Cleveland, August 1, 4, 1899, Abingdon, August 13, 1901, and Cedar Bluff, August 1, 1899, Va.; Sneedville, August 16, 1899, and Big Creek, Clinch River, Tenn. (C. C. A.). Knoxville, Tenn., de Selys, *Syn. Cord.*, p. 547 (or 110) 1871. Cumberland River, September 30.

42. **Macromia tæniolata.**

Cleveland, Va., August 4, 1899, one ♀ (C. C. A.).

43. **Neurocordulia obsoleta.**

Chattanooga, Tenn., October 23, 1901, a nymph (C. C. A.). Nashville, Tenn., reared May 26, June 2, 7. The nymphs were collected for me by Albert Guess, who found them clinging to his fish-traps when these were drawn from the water. Here, as in the case of *Epiæschna heros*, I should have no Tennessee record of the species had not the nymphs been taken.

44. **Pantala flavescens.**

Along a small stream in the city limits of Nashville, September 25, Centennial Grounds, October 16.

45. **Tramea lacerata.**

Fairfield Brickyards, October 5, Morrow Swamp, May, common.

46. **Tramea abdominalis.**

Fairfield Brickyards, October 5, one ♂, the only one seen.

47. **Tramea onusta.**

Morrow Farm, October 12, 1900, one ♂, P. H. Whiting; Morrow Swamp, May, common.

48. **Tramea carolina.**

Morrow Swamp, May, common.

49. **Perithemis domitia.**

Centennial Grounds, September 25, Morrow Farm and North Nashville, common, May; on June 7, great numbers of exuviæ were seen on leaves of *Nelumbo* in Morrow Swamp.

50. **Sympetrum semicinctum.**

Roan Station, Tenn., September 3, 1900, one ♂, Lancaster Thomas (communicated by Dr. Calvert).

51. **Sympetrum vicinum.**

Old brickyards, Morrow Farm, October 27, two ♂.

52. **Sympetrum albifrons.**

Cumberland River, September 30, one ♀.

53. **Sympetrum corruptum.**

North Nashville, March 17, two seen, one ♂, a bright, fresh specimen, taken; old brickyards, Morrow Farm, March 24, April 29.

54. **Mesothemis simplicicollis.**

Ponds and marshes about Nashville, September 25, October 5, 19 20, May 22—June 7.

55. **Pachydiplax longipennis.**

Morrow Swamp, May 5, 23, 30.

56. **Libellula basalis.**

Morrow Swamp, May 30, June 1.

57. **Libellula auripennis.**

Wheat field, Morrow Farm, June 6, one ♂.

58. **Libellula incesta.**

Morrow Swamp, June 1, one ♂.

59. **Libellula semifasciata.**

Morrow Swamp, April 30, May 22.

60. **Libellula pulchella.**

Roan Station, Tenn., September 3, 1900, Lancaster Thomas (communicated by Dr. Calvert). Vicinity of Nashville, October 5, May 11—June 7.

61. **Plathemis lydia** (**trimaculata** De Geer).

Roan Station, Tenn., September 3, 1900, Lancaster Thomas (communicated by Dr. Calvert). Nashville and vicinity, September 25, October 2, 16, April 28, 30, May 4, 15, 22.

A Morning's Collection at Raleigh, N. C.

By C. S. Brimley and Franklin Sherman, Jr.
Raleigh, N. C.

In the News for April Mr. J. H. Reading of Chicago recites his experience in "A Collecting Trip South." We are sorry to note his misfortune and disappointment, so have determined to give the results of one of our morning jaunts here at Raleigh, as evidence that all southern collecting is not as barren of results as that experienced by Mr. Reading. As we are at present especially interested in working up the Butterflies and Dragonflies of the State, we will only call attention to these features of our morning's work.

It was March 31st, this year, and the tramp lasted from about 9.50 A. M. to 2 P. M. The weather was fair and moderate with light wind. *Pieris rapæ* was abundant flitting over the fields, and on entering a piece of open woods we soon captured two hibernated specimens of *Euvanessa antiopa*, which were quite active and wary in the warm sunshine. Here the Dragonfly *Tetragoneuria cynosura* was abundant and we secured a good series. Among them we found occasional specimens of *semiaquea*. *Papilo ajax* (small spring form) was several times seen making its way hastily through the woodland, only stopping once or twice to draw nectar from the Vaccinium blossoms. The typical yellow form of *P. turnus* was observed at close quarters, and the dark form (*glaucus*) of the female was also observed at a little greater distance. *Terias nicippe* proved not uncommon and several specimens were added to our collection.

Among the Dragonflies, again, the little Agrionid *Nehalennia posita* was common in the marshy places, where we also took *Plathemis lydia*, the first of the season. One or two large Æschnids, probably *Epiæschna heros*, were seen coursing rapidly and irregularly over the meadow and through the open woods. *Gomphœschna furcillata* was likewise observed, as was also *Cordulegaster maculatus*. *Gomphus sordidus* was represented in our catch by two females, and *Didymops transversa* was also taken.

But to return to the Butterflies. Both *Lycæna comyntas* and *L. pseudargiolus* were taken, and these are the only species of the genus which we have yet taken in the State. Along a path we secured a series of *Chrysophanus hyphophlæus* and several *Phyciodes tharos*, while the blossoms of a wild plum tree lured two *Vanessa huntera* to their fate. A small *Colias eurytheme* had been taken and a small *Junonia cœnia* observed, near the same place a week earlier. Dancing through the warm woods we found *Neonympha gemma* in sufficient numbers to be classed as "common." *Eudamus bathyllus* was taken while sunning in the pathway, and on the huckleberry blossoms we took a number of *Thanaos juvenalis* and one specimen of *brizo*. *Anthocharis genutia* ♂ was taken, and a pretty little fellow he is too, with the orange tips to his falcate wings. Several had been taken a week previous. While following what we suspect was a female *Anthocharis* we were suddenly arrested by the appearance of *Thecla damon* on a bush before us, where he sat for a moment chafing his hind wings together after the fashion of Theclas.

Last, and perhaps best of all, those who are accustomed to poorer collecting grounds than ours, would have been delighted to see *Pamphila carolina*. This pretty little skipper, which was described from North Carolina and has never yet been recorded from any other State, was found not at all uncommon near a patch of white violets, and seven specimens fell to our share within a few minutes. As this insect is still unknown to most collectors a brief account of it may not be amiss. The general appearance of the insect when at rest is yellowish, the wings being closely folded together vertically over the back so that only the under surface is visible. They alighted not infrequently on the grass and sprouting leaves close to the ground, and several were also taken when perched on sticks or weed stalks one or two feet high. They are very pugnacious, and were observed to fiercely chase *Phyciodes tharos* and one of the *Lycæna*. One specimen of this species (*P. carolina*) was taken on March 24th, and on April 3rd, ten more were taken. The female, hitherto unknown, was represented among these.

Whatever the collecting may be in other states, we find in North Carolina a happy blending of faunas which makes it a most interesting territory to collect over. Such collecting as we have here described for the latter part of March is scarcely typical of that season, as this spring has been unusually forward. Normally this experience would be had in mid-April, but we have not "padded" our account in the least, and have specimens at hand, of all species here recorded as captured.

The Eggs of the Psorophora Ciliata.

By H. F. Harris, M. D., Atlanta, Ga.

Although the larval and pupal stages of the *Psorophora ciliata* have been recently described by Prof. Howard, no one, so far as I am aware, has as yet been able to obtain the eggs of this rather uncommon mosquito.

During October of the past year, while studying the relationship of the various members of the family of Culicidæ to malaria, it was my good fortune to obtain a number of eggs from a female *Psorophora ciliata* which was being used in my experiments. The insect from which the eggs were obtained was captured on October 4, 1902, and was allowed to bite a boy suffering from chronic tertian malaria during the succeeding night. The mosquito was then placed in a cage covered by cotton netting, and was supplied with water and a small piece of fresh banana each day. On the morning of October 10th, the insect was found upon the surface of the water, which was contained in a small standing dish, and was apparently unable to get out. On close inspection there were found lying upon the surface of the water numerous, small, oval, dark-colored, objects that were at once recognized as eggs—evidently having been laid by this mosquito which was alone in the cage. These eggs were scattered upon the surface of the water, no two being in contact, and upon examination with a hand lens they appeared to be concavo-convex bodies, the convex surface lying always in contact with the water.

Under the microscope, as well as when viewed by the unaided eye, the eggs appeared almost black. They measured from

0.704–0.759 mm. in length, 0.352–0.385 mm. in breadth, and from 0.240–0.245 mm. in thickness. When viewed with a high power lens they are found to be distinctly convex on one side and slightly concave on the other, and when seen from either of these surfaces they exhibit an almost perfectly oval form. Occasionally at one end there is a slight projection, giving to the egg, when this exists, a contour not unlike that of a pecan. When examined under a comparatively high power of the microscope the surfaces of the eggs are seen to be beset with numerous, transparent, thorn-like projections, all of which usually lie at an acute angle, and all point in the same direction; this angle is one of about 45° as a rule, but the inclination may be greater or less—in some instances being even at right angles with the surface upon which they lie. These projections are from 12–14 μ in length, and from 7–8 μ in width. Their free ends are usually rounded, and present a knob-like appearance in many instances.

The *Psorophora ciliata* that laid these eggs was removed from the water and again placed in the cage where in a very short time the insect entirely recovered.

Prof. Howard states that he has been unable to obtain the eggs of this mosquito, although he has kept them in cages with this object in view for a considerable length of time. I cannot say with certainty as to the cause of my success in this matter, but would suggest the possibility that this may be the result of the insect in this case having had a full meal of blood some five days previous to the time the eggs were deposited. It may be possible that the *Psorophora* must have blood in order that the eggs may properly mature within their bodies.

A New Roach of the Genus Ischnoptera from Florida.

By James A. G. Rehn.

The specimen on which this species is based was referred to me for determination by Mr. C. W. Johnson, who collected it at St. Augustine, Florida. It gives me great pleasure to dedicate this striking species to the collector, as a slight token of personal esteem as a friend and naturalist.

Ischnoptera johnsoni n. sp.

Type: ♂ ; St. Augustine, St. John County, Florida (C. W. Johnson). [A. N. S., Phila.]

Apparently closest allied to *I. nigricollis* Walker (Catal. Blatt. Brit. Mus., p. 118), but differing in the shorter and darker tegmina, the more reflexed lateral borders of the pronotum and the blackish abdomen. In color this species bears considerable resemblance to *I. linearis* (Serville) from South America, but that is structurally different, and is also a larger insect.

Size small; form elongate and graceful. Head with the interspace between the eyes of moderate width, and about equal to that between the elongate-ovate ocelli; antennæ filiform, slightly pilose, not exceeding the body in length. Pronotum with the disk somewhat flattened, and bearing two shallow postero-lateral, sub-circular depressions; lateral portions of slight depth, but quite sharply deflected; anterior and posterior margins very broadly rotundate, lateral margins straight, the angles broadly rounded. Tegmina rather elongate; basal field narrow, of little extent, sub-coriaceous; marginal field narrow, the costal veins very numerous, closely placed, and extending quite uniformly to the tip of the field; veins of the discoidal field longitudinal; anal field sub-hastate in form, the veins closely and evenly disposed. Wings with the costal veins numerous and closely placed; medio-discoidal space considerably greater than the medio-ulnar; anterior ulnar vein with three complete and five incomplete rami. Abdomen depressed; supra-anal plate narrow, produced, the apex subtruncate, and with a broad, shallow median depression; cerci depressed, attenuate, over twice the length of the supra-anal plate; subgenital plate produced, fornicate, apical styles small. Limbs comparatively slender, the posterior metatarsi over half as long again as the second and third tarsal joints.

General color blackish vinaceous; limbs sienna; ocelli whitish. Pronotum and head blackish; tegmina deep vinaceous, becoming paler toward the extremities; wings slightly suffused with pale vinaceous, strongest apically; the veins of the same color, but of a more solid tint. Upper surface of the abdomen and abdominal appendages blackish vinaceous.

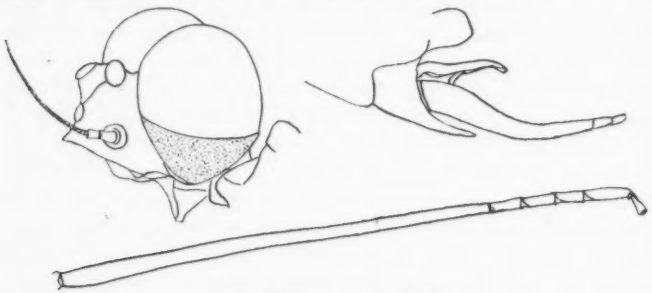
MEASUREMENTS.

Length of body	11.2 mm.
Length of pronotum	3.5 "
Greatest width of pronotum	4.2 "
Length of tegmina (apex damaged)	13 "
Greatest width of tegmina	4.1 "

A New Species of Habrophlebia.

By Nathan Banks.

Habrophlebia is a genus of Mayflies described by Eaton in 1881. Ths species have three setæ in both sexes, and differ from the allied *Ephemerella*, *Leptophlebia* and *Blasturus* in having the hind-wings angulate on the costal margin, and the fore-wings without the short marginal veins. The hind-wings are much narrower and with fewer cross-veins than in *Ephemerella*. In the male the eyes are enlarged and divided as in the allied genera; the eyes of the female are widely separate. The costal cross-veins are few and indistinct.



Habrophlebia americana Banks.

The genus is well represented in Europe, and Eaton in his Revisional Monograph says he has seen an undescribed species from New Hampshire. The one species known to me may be called:

Habrophlebia americana n. sp.

It is dark brown in color, mottled with pale on the sides of the thorax and abdomen; lower part of male eyes dark, upper part pale; legs pale, anterior femora darker, especially at tip; hind femora with a dark band near tip, and a less distinct one near the middle. Wings hyaline; venation pale brown. Fore wings rather narrow; no costal cross veins before the bulla; no short marginal veins; intercalary veins not branched. Hind wings with the costal margin strongly angulate in the middle; few costal cross-veins. Three subequal, annulated setæ, longer than the body; posterior tarsi four-jointed; male claspers pale, three-jointed.

Length, 5 mill.; expanse, 11 mm.

Received from Mr. Edw. Berry, of Passaic, New Jersey, who bred it, and has published a description of the nymph in the *American Naturalist*, 1903, page 26.

Notes on Buprestidae (Coleoptera) with Descriptions of New Species.

By Henry Skinner.

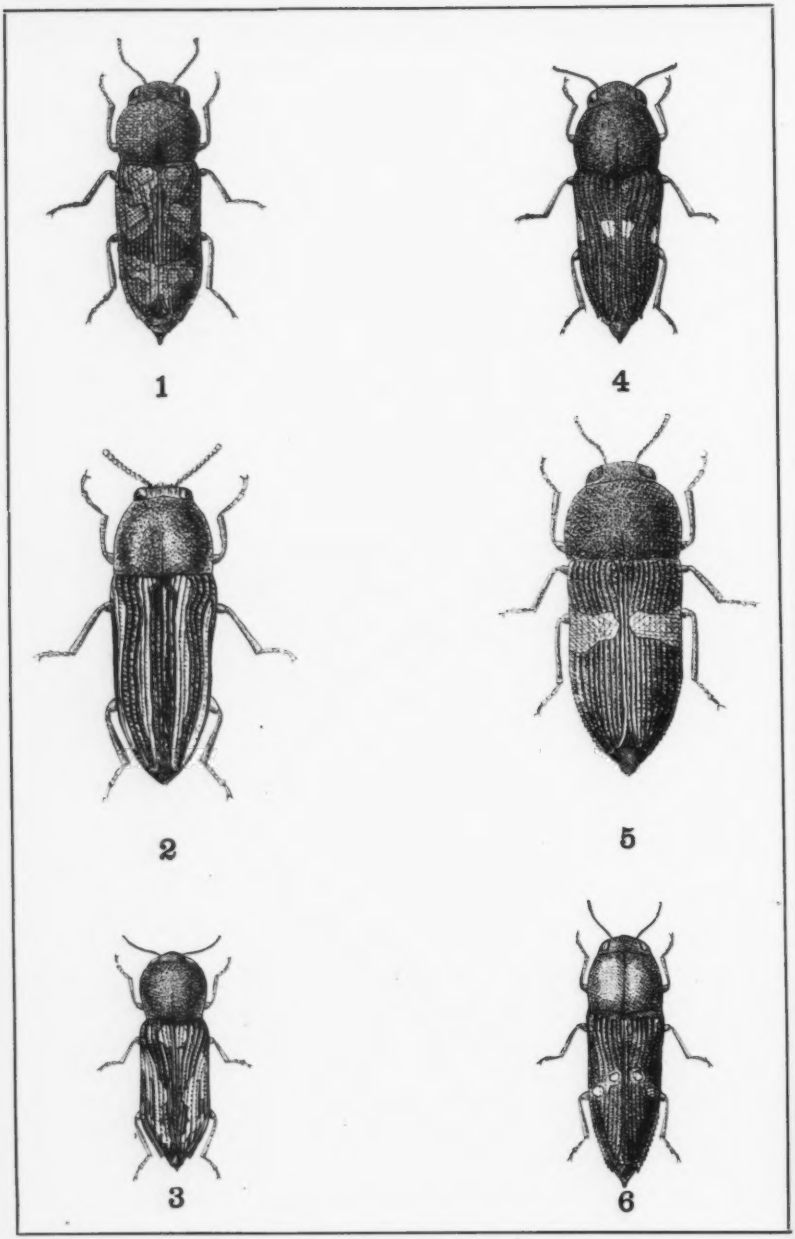
See Plate X.

During the summer we have received some interesting beetles from Arizona containing undescribed species. Among them were two new species of *Tyndaris*. Mr. Henry W. Wenzel was under the impression that there was also some new material in this genus in the U. S. National Museum. Through the courtesy of Mr. E. A. Schwarz, the Honorary Curator of the Coleoptera, I have been permitted to study these specimens. Mr. Schwarz has also most generously placed at my disposal the fine drawings made to illustrate the three new species, *olneyæ*, *prosopis* and *barberi* to which he had given manuscript names. We have but one described species of *Tyndaris* in North America, and that was described under the name of *cincta*, by Dr. G. H. Horn, in 1885, and the type is in the Horn collection, now the property of the American Entomological Society. Kerremans in the Genera Insectorum lists five species in the genus, one of which, *cincta*, is North American, and the other four South American, three being from Chili and one from Parana.

Tyndaris olneyæ n. sp. (Schwarz ms).

Head gray, clothed with silvery pubescence; antennæ black. Thorax gray, also with fine silvery hairs; there is a median depressed line extending from base to apex; finely and densely punctate. Elytra gray, the lateral margin not markedly serrulate as in *cincta;* apices ending in three points; striate, striæ punctured; elytra with silvery pubescence. Underside of body and legs gray with silvery pubescence. There are two orange-yellow spots on each elytron situated at about one-third of the distance from the thorax to the apex of elytron. One is close to the suture but not touching it, and the other on the lateral margin. One specimen examined has but one such spot, the marginal one only being present. This species is smaller and not as robust as *cincta*. Length 7 to 9 mm.

Our specimens were received from Mr. C. R. Biederman, and were taken at Florence, Arizona. Mr. Biederman says of them—"they were in one colony on dead 'cat claw' bushes,



NEW BUPRESTIDÆ (SKINNER).

and came in on June 26th, and vanished about July 10th. Although there are miles of such dead bushes, I only found this one colony, and they were scattered over a large area with never more than one or two on a bush." The specimens collected by Mr. Schwarz were bred from pupæ found in the exposed roots of *Olneya tesota* at Yavapai Hot Springs, Arizona, and bear dates from June 24th to June 26th.

Tyndaris prosopis n. sp. (Schwarz ms).

Head bronze brown, shining, moderately pubescent. Thorax shining bronze brown with a marked median depressed line extending from base to apex; moderately pubescent. Elytra bronze brown, shining, with silvery pubescence; coarsely striate, intervals and striæ punctate; nearly midway between the thorax and the apex of elytron is a rather dark orange spot surrounded by a blue circle; there is a similar spot near the side margin; these spots are not quite in line, in which they differ from *olneyae*. Length 8 mm.

From one specimen cut from a dead branch of *Prosopis juliflora* by Mr. Schwarz in the immediate vicinity of the famous dam across the Colorado river at Austin, Texas, June 26th. This species at first glance looks very similar to *olneyæ*, but the bronze color, coarser striæ and character and position of the spots serve to readily distinguish it. It is a handsome and interesting species.

Tyndaris chamæleonis n. sp.

Thorax bronze brown, rather moderately punctate. Elytra with punctate striæ not so coarse and irregular as in *prosopis;* what little of the ground color that shows is very dark shining green; one orange-yellow spot in angle made by junction with thorax and elytral suture; one orange-yellow spot with a linear extension to the margin from upper edge, and one from lower edge, the latter not approaching the margin; these spots are in the centre of the elytron There are two additional spots at lower third, the outer one reaching the margin; in one specimen these spots and the upper ones also are geminate; all are surrounded by dark blue as in *prosopis*. This species lacks the linear median thoracic depression so marked in the former species; the apices of the wings are more rounded and striæ more regular. Length 6.5 to 8.5.

Described from two specimens very kindly submitted to me for study by Mr. Charles Schæffer of the Brooklyn Institute. One specimen bears label, New Braunfels, Comal Co., Texas, collection Ottomar Dietz, and the other Esperanza Ranch,

Brownsville, Texas, July, on flowers of mesquite, collection Brooklyn Institute.

Tyndaris barberi n. sp. (Schwarz ms).

Head and thorax gray with a bronzy reflection, clothed with silvery pubescence. Elytra black, striate and punctate, the striations finer than in the previous two species; there are two sordid white or yellowish spots on the elytra nearly reaching the thoracic suture and elytral sutures; connected with these at the lower edge are two linear spots which reach the thoracic suture; extending from these to near the apex of the elytron are two linear spots (or lines) almost reaching the elytral apex, the ground color showing through in three places, the central one being open laterally. The legs and underside of the body are gray black. Length 5 mm.

Described from three specimens, two of which were taken on dead "cat claw" at Florence, Arizona, June 28th, by C. R. Biederman. Diligent search failed to reveal more specimens. One specimen taken at Hot Springs, Arizona, June 28th, by Mr. H. S. Barber. At the request of Mr. Schwarz, I have named this after his assistant who captured the species and who has done such good work collecting in the west. It was found on an unknown shrub. This little species is very conspicuous with its yellowish maculation. The three species above described are characteristic of the genus, being of rather robust form, cylindrical and narrowed posteriorly, as in *Acmædodera*. Mr. Schwarz also sent me two Chilian species, *marginella* and *gayi* Chevrolat, the latter being a synonym of *planata* Castelnau and Gory. *Marginella* is a large black species, being 12.5 mm. long. It has a yellow spot on either side of the thorax, and the upper two thirds of the external margin of the elytron is yellowish. *Planata* (*gayi*) is dark blue, with two oblique orange spots on each elytron; an orange line on the upper third of the elytral margin, and a small orange spot on the elytral margin in line with the lower oblique spot. Length 7 to 11 mm. The following brief characterizations may be useful in separating them from North American species that may subsequently be found. The five North American species may be separated as follows:

Large black species with a median cream colored fascia . . . . . **cincta.**
Gray species with four dark orange spots . . . . . **olneyæ.**
Bronzy species with four dark orange spots surrounded with blue.
prosopis.

Small species with yellow maculations and lines . . . . . **barberi.**
Maculate species. 8 orange maculations surrounded with blue.
chamæleonis.

Acmæodera biedermani n. sp.

Head, shining bronze brown clothed with long silvery pubescence, and moderately coarse punctuations. Elytra dark shining blue, striate and punctate; a yellow line extends from the thoracic juncture to the apex, wide at beginning, then narrowing, wider near the middle and ending in a point near apex; this line is parallel to but not reaching suture. A similar line, but narrower, runs parallel to the margin, beginning near thoracic juncture and ending in a point. It is shorter than the other line, and does not extend to the apex. Underside very hirsute, hairs sordid white. Length 10 mm.

Described from one specimen taken at Florence, Arizona, May 8th, 1903, by C. R. Biederman, who is a most excellent and enthusiastic collector. This species is a very distinct and handsome one. It looks like a giant edition of the *quadrivittata* of Horn. We have received from Mr. Biederman a large series of *A. delumbis*, Horn, from Florence, Arizona, vi, 28, 03. They present very considerable variation. *Delumbis* was described from two specimens from Arizona, no exact locality being given. Mr. Fall* places this as a synonymn of *gibbula* Lec.

EXPLANATION OF PLATE.

Fig. 1 Tyndaris chamæleonis.
Fig. 2 Acmæodera biedermani.
Fig. 3 Tyndaris barberi.
Fig. 4 Tyndaris olneyæ.
Fig. 5 Tyndaris cincta.
Fig. 6 Tyndaris prosopis.

A QUESTION IN REGARD TO LABELLING.—The rural free delivery mail system is playing havoc with my labelling. I had specimens from "Galveston N. C.," but now it is "Durham R. F. D. No. 2," although Durham is nine miles distant. Now, how can we designate such localities so that the labelling will be permanent and satisfactory? "Durham R. F. D. No. 2" may cover a territory of fifty square miles; "Galveston" is no more; and what am I to do? This is not an exceptional case, for these delivery routes are invading all parts of my State, and as my collections are from various localities, it begins to look as if I will get in a pickle. Will some one favor me with a suggestion?

FRANKLIN SHERMAN, JR.
Dept. Agr., Raleigh, N. C.

* Jour. N. Y. Ent. Soc. vii, i. 99.

ENTOMOLOGICAL NEWS.

[The Conductors of ENTOMOLOGICAL NEWS solicit and will thankfully receive items of news likely to interest its readers from any source. The author's name will be given in each case, for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and, as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for a certain issue. Twenty-five "extras," without change in form, will be given free, when they are wanted; and this should be so stated on the MS., along with the number desired. The receipt of all papers will be acknowledged.—ED.

PHILADELPHIA, PA., SEPTEMBER, 1903.

While it is true that the literature of entomology comprises somewhere between forty and fifty per cent. of all zoology, it appears there is not enough work done to do justice to the subject, as the number of species is relatively so much larger as compared with zoology in other branches. We need more workers in every order to revise and monograph species, genera and families. Systematic work comes first, as we must classify objects in nature to utilize them when it comes to biology, economy, etc. Every working entomologist knows of groups of species that should be put in better shape, and wishes that the work could be done. This applies to all orders. While the interest in entomology has taken great strides, we still see the necessity of more students to put the work on a still firmer foundation. In the Coleoptera for instance there are many genera and families needing revision, and in this order we are also badly in need of a reference list giving also the distribution. In the Lepidoptera we need a revision of the genera *Thecla* and *Lycæna*, and particularly all the Hesperidæ. The other orders are as badly off, and it is to be hoped that more people will take up the work and subdivide the labor, as there is room for all. We need more good popular works to interest those persons who may eventually become entomologists. A popular work on the Coleoptera is very badly needed, but it will be an enormous undertaking for any one person. We also need more students of the life-history of insects. The interest is growing, but the subject is vast.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

SAY! If a fly gives birth to a little fly, is the sister to the mother of the little fly an ant?

"WHAT'S the matter?" asked the centipede. "The doctor tells me I have one foot in the grave," replied the worm. "Oh, I wouldn't let a little thing like that worry me," said the centipede.

NEW NAME FOR *Dictyopteryx* Pictet.—The name of this very distinct genus of Perlidæ is preoccupied by *Dictyopteryx* Stephens, Catalogue, 1829. Pictet first published the name in 1841. Therefore, I propose for the Perlid genus the name *Perlodes*.—NATHAN BANKS.

THE plates of Sphingidæ, by Calverley, Weidemeyer and Edwards, which were for sale by the American Entomological Society, have all been sold. If any one wants this work, he can obtain a set of the plates from the Brooklyn Institute of Arts and Sciences and the letter-press from the American Entomological Society.

Troctes needhami and *T. bicolor* Enderlein, recently described in the Zool. Jahrbücher , Abth. f. Syst., xviii, 360, 1903, are synonyms of *Troctes niger* and *T. bicolor* described by me in the ENTOM. NEWS, 1900, pp. 559, 560. All the types come from Virginia, and the fact that Enderlein called one of his species *T. bicolor* would indicate that he does not examine the *Zool. Record* very carefully.—NATHAN BANKS.

Miscodera arctica Payk.—While collecting at Mt. Ktaadn, Me., last summer, during the latter part of August, I collected a specimen of *Miscodera arctica* Payk. near the base of the mountain, at an elevation of 3000 feet. The specimen has been identified for me by Mr. C. Schaeffer, of the Brooklyn Museum. Mr. Samuel Henshaw writes me that he has records of its capture in Northern Michigan, Alaska and New Foundland.—H. G. BARBER.

ALEYRODES (TRIALEURODES) VITRINELLUS Ckll.—This is a new species found abundantly (with much black fungus) on the under side of what appear to be orange leaves from the garden of Nezahualcoyotl, Tezcuco, Mexico, I have sent a description to Prof. A. L. Herrera, who sent me the specimens, but as the Mexican publications do not circulate so widely as the NEWS, it is worth while to indicate here that it is a species closely allied to *A. floridensis*, but with the pupa larger (about 900 μ. long), without any dark markings, and with the fringe of glass-like rods coarser and somewhat longer. There is no dorsal secretion. The vasiform orifice is broad-cordiform, with the apical notch very faint; the operculum is very broad, not at all pointed. The adult is yellow.—T. D. A. COCKERELL.

AN INQUIRY.—Does anyone know of the existence of Odonata of the subfamily Cordulinæ (Selys) in Mexico or Central America? I have not seen a single individual purporting to come from the countries named, excepting one male of *Somatochlora lepida* Selys, in the collection of the Academy of Natural Sciences of Philadelphia, labeled "Mex." The history of this individual is unknown, and I had long ago added the label "Locality Mexico probably erroneous."—PHILIP P. CALVERT.

MR. CHARLES DURY, of Cincinnati, Ohio, spent forty-eight days collecting at Brownsville, Texas. "I found insects (except fleas and ticks) rather scarce and, though I worked very hard, those expected tropical forms failed to appear in the Lepidoptera. Though I secured many species that are strangers to me, they are such plain-looking little things that they have no tropical appearance at all. In the Coleoptera a few tropical genera rewarded very careful search. Diptera and Hymenoptera were scarce and but few in species. I left there May 20th, and concluded that I was too early and that June would have been better."

SHE AND THE KISSING BUG.

She was an ancient maiden;
  She told her friends that she
Was only twenty-seven,
  But her age was forty-three.

A kissing bug attacked her;
  Her breast was filled with glee.
"At last," she cried, "there's something
  That has a taste for me!"—*Newspaper.*

Doings of Societies.

A meeting of the Feldman Collecting Social was held May 20th at the residence of H. W. Wenzel, 1523 S. 13th street, Philadelphia. Eleven persons were present.

Prof. Smith stated all the collections had been saved from the recent fire at Rutger's College, although the laboratory buildings were destroyed. He also reported that about the middle of May reports came in from a number of locations in New Jersey that the maple leaves were being eaten off at the base by insects. This happened for two or three nights, and upon investigation he found that it was caused by the species of *Lachnosterna*.

Mr. Boerner reported *Sphæridium scarabæoides* from the Philadelphia Neck, May 10th.

Mr. Hoyer exhibited three specimens of *Cychrus elevatus* from Laurel Springs, N. J., May 17th.

Dr. Skinner exhibited a species of *Tegrodera* from the Gila River, Arizona, May 4th. It seemed to be very distinct from the forms in the collections here.

Mr. Laurent exhibited a series of the under side of the posterior wings of *Eunica tatila* from Miami, Florida, showing variations.

W. R. REINICK, *Secretary Pro tem.*

A meeting of the Entomological Society of Western Pennsylvania was held at Carnegie Museum, Pittsburg, Pa., on Saturday Eve, July 11th, Geo. T. Krautwurm taking the Chair in absence of President W. J. Holland. Mr. Engel made remarks on *Bembecia marginata*, he having found the larvæ and pupæ in stems of blackberry and raspberry. Remarks were also made by other members on different species of Sesiidæ.

A meeting was also held on August 1st, H. G. Klages acting as President. Eleven members present. The Annual Field Day was selected to be held at Squaw Run, Pa., on Aug. 9th, and all members invited to attend.

F. W. FRIDAY, *Secretary.*

A meeting of the Entomological Section of Chicago Academy of Sciences (Chicago Ent. Society), was held in the John Crerar Library, Thursday evening, May 21, 1903.

Nine members present. Visitor, Mr. Dennis, of Chicago University. Mr. Longley in the Chair.

After the transaction of the regular business, Mr. Healy took the floor for the discussion on *Satyrus alope*. He spoke particularly of its marked variation from east to west, and the tendency to become larger and lighter the further west it ranged, resembling many other species in this respect. His series of the species, which was exhibited, helped to illustrate this point.

Mr. Healy spoke also of the effect which climate and food plant can produce in variation.

JOHN COMSTOCK,
Recorder.

At the meeting of the Feldman Collecting Social, held June 17th, at the residence of Mr. H. W. Wenzel, 1523 South 13th street, Philadelphia, fourteen persons were present.

Dr. Castle spoke of his recent collecting trip in Florida. Insect traps took many species, including *Silpha carolina*. Many specimens of *Phanæus igneus* were captured on excrement. At Jupiter Inlet *Staphylinus comes* and *Caridium Le Contei* were taken several inches in the sand. *Notolomus bicolor* was abundant, as was also *Cryptocephalus aulicus*. The weather was cool, the previous winter having been very wet. Carabidæ were rare. A species of *Galerita* encountered, bombarded like the species of *Brachynus*. The *B. alternans* and *Galerita* were usually found associating.

Mr. Laurent stated that on the average about 200 young emerge from each egg-mass of the mantis, *Tenodera sinensis*.

Mr. A. Hoyer exhibited some Coleoptera from Delaware County, Pennsylvania.

In connection with these Mr. Wenzel called attention to *Liopus parvus*, which seems to be common this season, though heretofore it had been quite scarce. Also *Gaurotes cyanipennis*, which seems to be more plentiful than usual. In fact, Coleoptera in general were unusually abundant this season. He reported that three specimens of *Phymatodes æneus* were taken at Anglesea, N. J., last season, and this year twelve specimens. In the lot only one specimen was maculated. Only the unique type of this species had previously existed in collections.

Mr. Reinick exhibited an artificial beetle, a very good imitation of a species of *Lucanus*.

Mr. Laurent reported that a specimen of *Lucanus elephas* had been taken recently at Anglesea, N. J.

On motion a vote of thanks was given Prof. Smith for his kindness in entertaining the society at the last meeting.

WILLIAM J. FOX, *Secretary*.

We regret to say that Mr. F. D. Twogood, a subscriber to the NEWS for a number of years and a well known collector in California, died at Riverside, March 23, 1903.

EXCHANGES.

Not Exceeding Three Lines Free to Subscribers.

☞ These notices are continued as long as our limited space will allow; the new ones are added at the end of the column, and only when necessary those at the top (being longest in) are discontinued.

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of species to be **limited to twenty-five** for each sending; 2d, the sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly; 4th, All insects must be mounted. Exotic species named only by special arrangement with the Editor, who should be consulted before specimens are sent. Send a 2-cent stamp with all insects for return of names. **Please put date of capture and exact locality on each specimen.** Before sending insects for identification, read page 41, Vol. III. Address all packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

Exchanges solicited in moths, butterflies of N. America. Catocalas preferred. Send lists to Jos. H. Reading, 775 N. Rockwell St., Chicago, Illinois.

Lepidoptera from all parts of the world to exchange for species not in my collection.—Frank Haimbach, No. 1309 Allegheny Avenue, Philadelphia, Pa., U. S. A.

Lepidoptera.—Fertile eggs of *Argynnis diana* wanted.—John Ruston, 10 Carlton Road, Workrop, Nottingamshire, England.

North American Butterflies wanted in exchange for Lepidoptera of Southern California.—P. H. Hart, Pasadena, Cal.

Butterflies for exchange. Expect to have limited number of *Œneis chryxus, P. smintheus, Basilarchia wiedemeyeri* and others during summer. Send lists of what you have.—A. M. Hendee, Central City, Colo.

Will collect in all orders. Would like named or unnamed Coleoptera in exchange. Please write to G. Chagnon, P. O. Box 186 Montreal, Can.

Moths of Pennsylvania and New Jersey. The undersigned will give good exchange in cash or specimens for moths of Pennsylvania and New Jersey that are new to his collection. Send list of rare species only.—Philip Laurent, 31 East Mt. Airy Ave., Philadelphia, Pa.

Wanted.—Sphegidæ of North America, Mexico and the West Indies (as included in Cresson's Synopsis) for study in connection with a revision of the group. Material sent will be returned named as far as possible.—H. T. Fernald, Amherst, Mass.

I will give Lepidoptera, publications or cash, for Smith's "Monograph of the Sphingids," published in Vol. xv, Trans. Ent. Soc., Acad. Nat. Sciences, 1888.—H. H. Newcomb, 35 Court St., Boston.

Hymenoptera.—Will be pleased to send duplicates in return for identifications.—Charles Stevenson, 906 St. Urbain Street, Montreal, Canada.

Wanted for cash, fertile ova of *regalis, imperialis, Triptogon modesta, Angulifera.*—H. M. Peinze, Northboro, Mass.

Will collect in all orders, insects of South East New England for Lepidoptera of North America.—L. W. Tilden, Box 54, New Bedford, Mass.

Wanted.—Fertile eggs, *Cith. regalis*, also all kinds *Thecla* and *Lycaena* for Lepidoptera from here.—H. M. Boyer, 220 Hudson Street, Reading, Pa.

Wanted.—Life histories in all orders of insects. Will pay cash or give exchange for same. Write what you have, and state lowest cash price.—Denton Bros., Wellesley, Mass.

Desirable Lepidoptera for exchange. Would like to receive lists of good species.—John Comstock, 1572 Ridge Ave., Evanston, Ill.

I will collect Lepidoptera, Coleoptera, Hymenoptera, Hemiptera of this locality, in exchange for Diurnal Ledidoptera of the United States, or named Diurnals of foreign countries. Write at once.—M. E. Hoag, D. D. S., Oakville, Iowa, U. S. A.

I will give Lepidoptera, publications or cash for Smith's "Monograph of the Sphingids," published in Vol. xv, Trans. Ent. Soc., 1888.—H. H. Newcomb, 35 Court Street, Boston.

Parnidæ.—Parnidæ of the world wanted. Will pay cash or give exchange. (Correspondence French, German or English).—William D. Richardson, Fredericksburg, Virginia.

Wanted.—ENT. NEWS, vol. viii, No. 6.—Louis H. Joutel, 164 E. 117th Street, New York City.

Arctians.—Living eggs or larvæ of any North American moths of the genus *Apantesis* wanted for purposes of studying preparatory stages. Will be glad to render help, if possible, as to wants of anyone assisting. Arthur Gibson, Cent. Exp. Farm, Ottawa, Can.

N. A. Lepidoptera desired. Those willing to collect, in exchange for European specimens, please communicate with James McDunnough, care Wilson, 385 Gt. Western Rd., Glascow, Scot.

Lepidoptera.—I have *Paonias astylus*, *Chalænogramma jasminearum*, *Sphinx kalmiæ*, *plebeius* and other Sphingidæ of the Atlantic States for exchange for specimens not in my collection. Send lists.—Prof. Henry Wormsbacher, 122 Hutton St., Jersey City, N. J.

For Exchange.—Several thousand Colorado and Utah Lepidoptera in papers and pinned on small black pins. Will trade for a Winchester repeating take-down shot gun in perfect condition.—Arthur J. Snyder, Belvidere, Illinois.

I have some very fine and rare exotic and native Lepidoptera to exchange for native pupæ and cocoons. Will also take Catocala and Sphinx on pins or in papers. Send small lists to Charles F. Timm, 131 Ralph St., Brooklyn, N. Y.

Wanted Cicindela scutellaris, pulchra, sexguttata, purpurea, formosa, latesignata, fulgida, and vulgaris (any varieties), in as large number as possible. Coleoptera from northern Ill. and Ind.; Wood's Hole, Mass., and Elmira, N. Y., for exchange. Will collect as directed from the fauna of northern Ill.—V. E. Shelford, 5715 Drexel Ave., Chicago, Ill.

I wish to exchange American and European Lepidoptera and Coleoptera for American insects for the season of 1903. I am also a preparator of larvæ.—Karl Haertel, 198 California St., Newton Mass.

Coleoptera.—Paleoxenus Dohrnii Horn exchanged for Elaterids and Buprestids of the U. S. not yet represented in my cabinet.—A. Fenyes, M. D., Pasadena, Cal.

Wanted—for cash—Transactions Am. Entom. Society, Vols. I.-XXVI.; Proc. Entom. Soc. Phila., Vols. I.-IV.; Entomologica Americana, Vol. IV.; Entomological News, Vols. I.-VI., XI., XII.; Canadian Entomologist, Vols. I.-XXXIII.; Riley's Missouri Reports; Fitch's New York Reports; Leconte & Horn's Rhyncophora; works and papers on Aphidæ. Send lists of any other standard entomological works.—E. Dwight Sanderson, College Station, Tex.

I have Beetles, Butterflies, Moths, Catocalæ, spread or in papers, from Illinois, to exchange for U. S. and exotics, or pupæ and cocoons.—A. Mares, 1671 W. 23rd St., Chicago, Ill.

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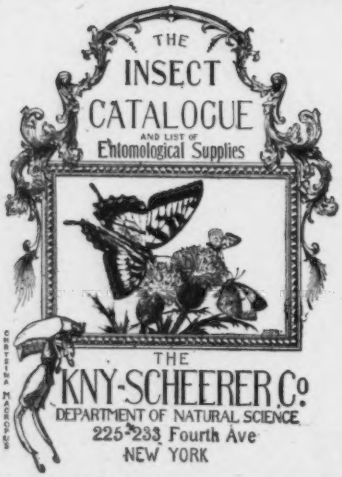

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